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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,444	12/28/2001	Ken Hirunuma	P21594	4409

7055 7590 11/12/2003

GREENBLUM & BERNSTEIN, P.L.C.
1950 ROLAND CLARKE PLACE
RESTON, VA 20191

EXAMINER

NGUYEN, THONG Q

ART UNIT PAPER NUMBER

2872

DATE MAILED: 11/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/028,444

Applicant(s)

HIRUNUMA ET AL.

Examiner

Thong Q. Nguyen

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 6) ☐ Other: ____

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

2. The drawings contain eleven sheets of figures 1-11 were received on 12/28/2001. These drawings are objected by the examiner for the following reason(s).
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: First, the references "142" and "144" shown in figure 2; Second, the references "32a", "32b", "52a" and "52b" shown in figure 3; and Third, the references "452", "456", and "474d" shown in figure 11 are not mentioned in the specification. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) Claim 1 is rejected under 35 USC 112, second paragraph because it is unclear about the structure of the transmitting mechanism, the driving mechanism having a shaft and the driving frame as recited in the feature thereof "a transmitting mechanism...said shaft" (lines 11-13). In particular, it is unclear how the transmitting mechanism can transmit the linear movement of the shaft to the driving frame by "supporting said shaft at both ends of said shaft" (lines 12-13)?

b) Claim 2 is indefinite because the feature "said optical device " (line 3) lacks a proper antecedent basis. Further, the feature thereof "said predetermined direction...usual position" (lines 1-3) is indefinite because it is unclear about the so-called "a usual position" recited in the claim.

c) Claim 4 is unclear by the recitation thereof "said driving frame is moved being guided in said predetermined direction" (lines 6-7). What does applicant mean by the mentioned recitation?

d) Claim 5 is indefinite because the feature "said motor" (line 3) lacks a proper antecedent basis; and the feature thereof "said shaft linearly moves rotating by

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said screw feeder mechanism" (lines 4-5) is unclear due to at least one grammatical error.

e) Claim 10 is rejected under 35 USC 112, second paragraph for the similar reason as set forth in element a) above. In other words, it is unclear about the structure of each transmitting mechanism for moving the frame.

f) Claim 11 is indefinite because the feature "said optical device" (line 17) lacks a proper antecedent basis.

g) The remaining claims are dependent upon the rejected base claim and thus inherit the deficiencies thereof.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-2 and 5 as best as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Enomoto et al (U.S. Patent No. 5,995,762).

Enomoto et al disclose an optical device having a correcting system for correcting a tremble of focused image. See columns 1-2. In the embodiment as described in columns 10 and 13-14 and shown in figures 10-11, the optical device comprises 1) a correction optical system in the form of lens elements (21, 22), each defines an optical axis (O1, O2); 2) a driving frame (20L and 20R) for holding the correction optical system wherein the driving frame is able to move in

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two perpendicular directions with respect to the optical axes (O1 and O2); 3) a driving mechanism having two actuators each comprises a shaft and a motor wherein the central axis of the shaft is parallel to the direction of movement of the driving frame which is controlled by a correspondent actuator; and 4) a transmitting mechanism (20M) for transmitting the linear movement of the shaft to the driving frame wherein each of inner walls (23a, 23b, 23c and 23d) of the transmitting mechanism (20M) are in contact with one of the ends of the shafts . With regard to the direction of movement of the driving frame, one of the actuator is oriented in a vertical direction when the optical device is held in a horizontal direction with respect to the eyes of a user. See the actuator having shaft 134c and motor 134a and the inner walls (23a and 23b) which are in contact with the ends (134b and 134c) of the vertical shaft.

With regard to the so-called "screw feeder mechanism" of the driving mechanism, it is noted that the structure and the operation of the shaft and the motor as describe din the present specification and those described in the Patent, column 12.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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10. Claim 11, as best as understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Hirunuma et al (U.S. Patent No. 6,043,934) in view of Imura et al (U.S. Patent No. 5,881,325).

Hirunuma et al disclose an optical device having a mechanism for correcting a tremble of a focused image. See column 1. The mechanism as described in columns 5-6 and shown in figure 2 comprises 1) a correction optical system in the form of lens elements (19 and 20), each defines an optical axis; 2) a driving frame (18) for holding the correction optical system wherein the driving frame is able to move in two perpendicular directions with respect to the optical axes of the correcting optical system; 3) a driving mechanism having two actuators each comprises a plunger having a shaft wherein the central axis of the shaft is parallel to the direction of movement of the driving frame which is controlled by a correspondent actuator; and 4) a transmitting mechanism (23 or 28) for transmitting the linear movement of the shaft to the driving frame.

With regard to the supporting means for supporting the shaft at a pressing force independently of the position of the system as recited, it is noted that a plunger having a shaft and spring for providing force is known to one skilled in the art as can be seen in the optical device having an image correction system provided by Imura et al. See columns 4-5 and figures 3-8. Thus, it would have been obvious to one skilled in the art to utilize a plunger having a shaft and spring for providing force to the shaft as suggested by Imura et al for the purpose of moving the shaft.

Allowable Subject Matter

11. The following is an examiner's statement of reasons for allowance:

The device as claimed in claim 3/1 is patentable with respect to the cited art, in particular, the U.S. Patent Nos. 6,043,934; 5,305,040; 5,619,735; and 5,995,762, by the limitations relating to the transmitting mechanism having two projecting portions projected from the driving frame along the optical axis of the device so as to face the corresponding end of the shaft of the driving mechanism and a pressing member provided on at least one projecting portion that cause the shaft to be supported at both ends by pressing the shaft against the other of the projecting portions.

The device as claimed in claim 10 is patentable with respect to cited art, in particular, the U.S. Patent Nos. 6,043,934; 5,305,040; 5,619,735; and 5,995,762, by the limitations relating to the use of two driving frame, two driving mechanism, and two transmitting mechanism wherein each of the transmitting mechanism supports the shaft of the corresponding driving mechanism at both ends of the shaft, and the second driving mechanism is supported by the first driving mechanism.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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12. Claims 3-4 and 6-9 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

13. Claim 10 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

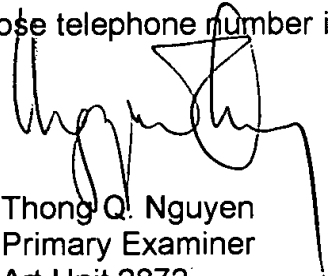
Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additional references are cited as of interest in that each discloses a mechanism for moving a correcting optical system in two perpendicular directions for the purpose of correcting image blurs/vibrations.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Nguyen whose telephone number is (703) 308-4814. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew A Dunn can be reached on (703) 305-0024. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308 0956.



Thong Q. Nguyen
Primary Examiner
Art Unit 2872
